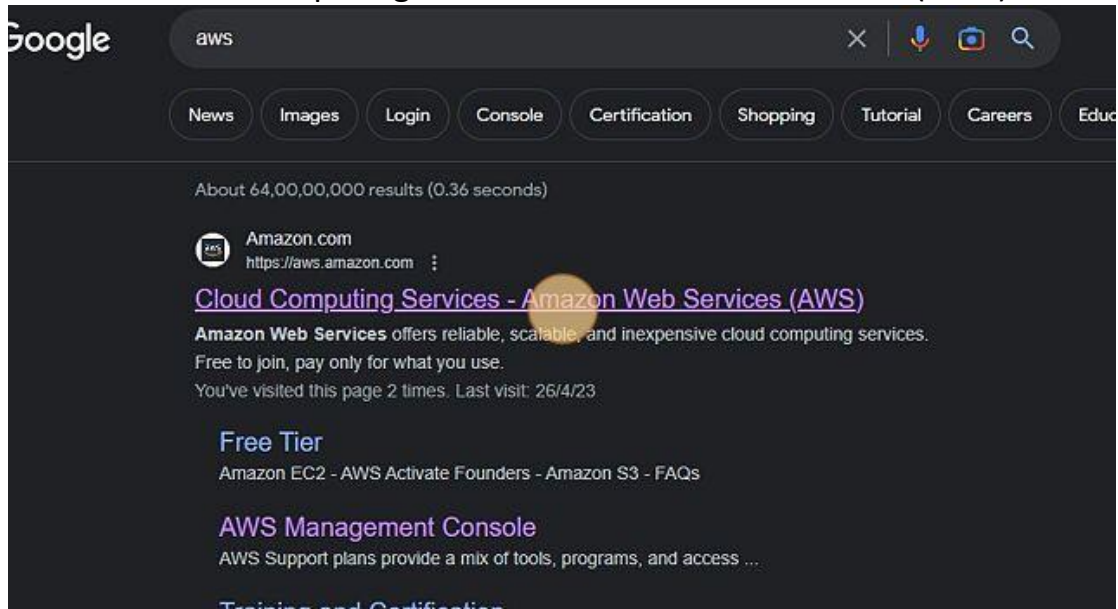


# AWS Workflow

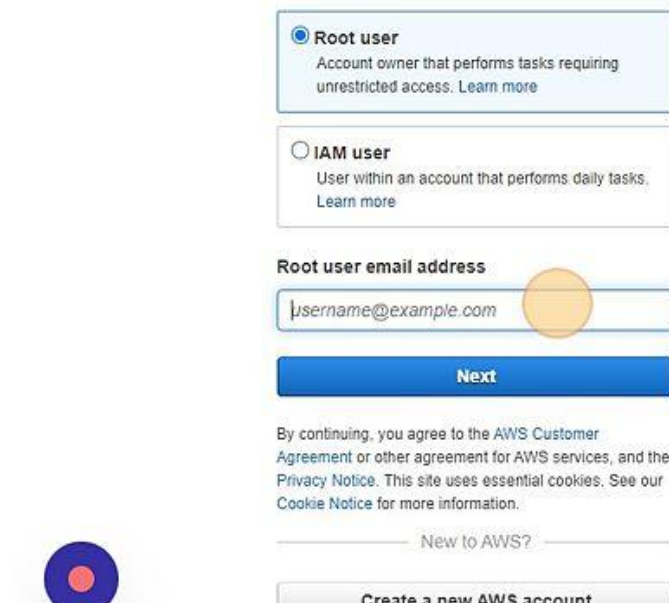
1. Navigate to [www.google.com/search?q=aws&oq=&aqs=chr...](https://www.google.com/search?q=aws&oq=&aqs=chr...)
2. Click "Cloud Computing Services - Amazon Web Services (AWS)"<sup>2</sup>



3. Click "Sign In"



4. Click the "username@example.com" field.3



The screenshot shows the AWS account creation form. The "Root user" option is selected. The email address field contains "username@example.com". A yellow circle highlights the email field. The "Next" button is visible. Below the form, there is a link to the AWS Customer Agreement and a "New to AWS?" link. At the bottom, there is a "Create a new AWS account" button.

☒ **Root user**  
Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ **IAM user**  
User within an account that performs daily tasks. [Learn more](#)

Root user email address

username@example.com

**Next**

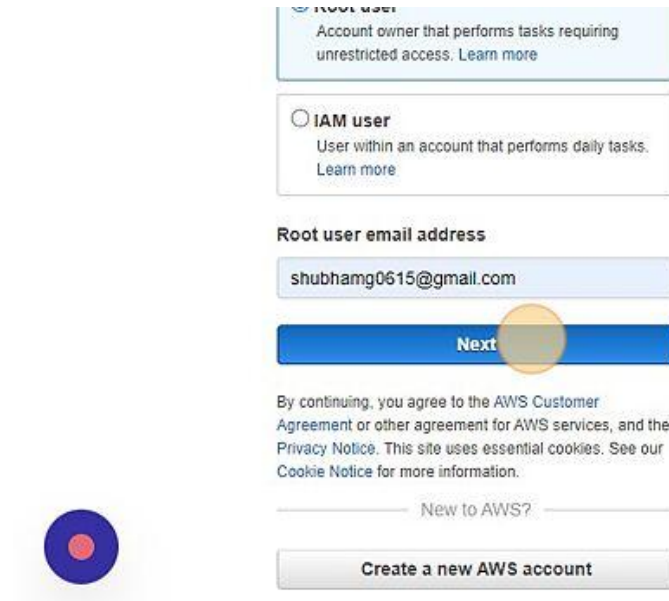
By continuing, you agree to the [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

[New to AWS?](#)

**Create a new AWS account**



5. Click "Next"



The screenshot shows the AWS account creation form. The "Root user" option is selected. The email address field contains "shubhamg0615@gmail.com". A yellow circle highlights the "Next" button. The "Next" button is visible. Below the form, there is a link to the AWS Customer Agreement and a "New to AWS?" link. At the bottom, there is a "Create a new AWS account" button.

☒ **Root user**  
Account owner that performs tasks requiring unrestricted access. [Learn more](#)

☐ **IAM user**  
User within an account that performs daily tasks. [Learn more](#)

Root user email address

shubhamg0615@gmail.com

**Next**

By continuing, you agree to the [AWS Customer Agreement](#) or other agreement for AWS services, and the [Privacy Notice](#). This site uses essential cookies. See our [Cookie Notice](#) for more information.

[New to AWS?](#)

**Create a new AWS account**



6. Click "Sign in"4



The image shows the AWS Root user sign-in page. At the top is the AWS logo. Below it is the heading "Root user sign in" with an information icon. The email field is pre-filled with "shubhamg0615@gmail.com". The password field is masked with dots. A "Sign in" button is highlighted with a yellow circle. Below the button are links for "Sign in to a different account" and "Create a new AWS account".

Root user sign in ⓘ

Email: shubhamg0615@gmail.com

Password [Forgot password?](#)

.....

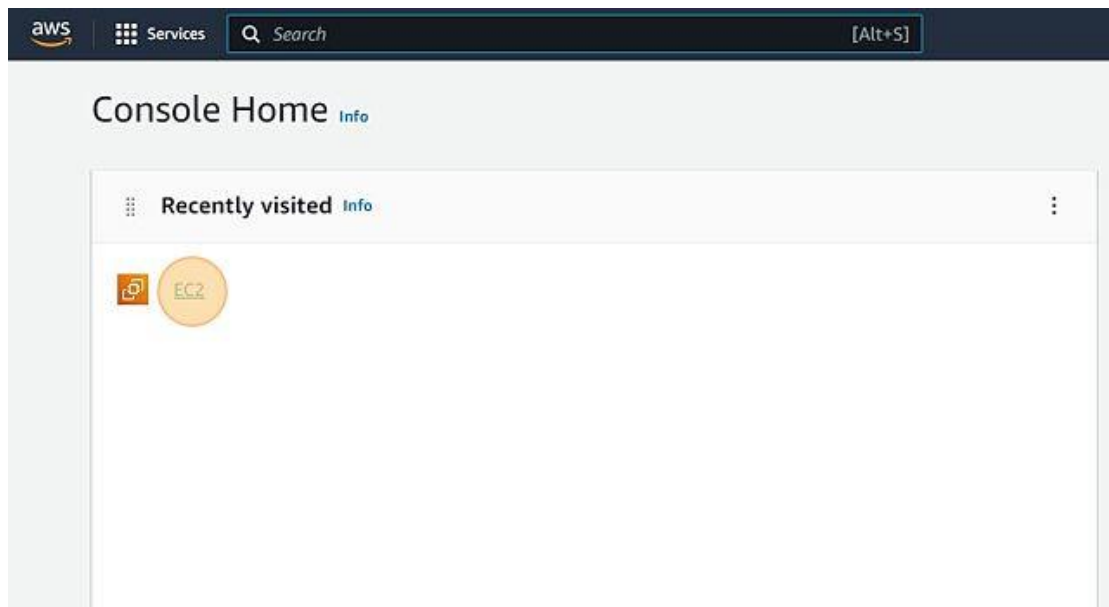
**Sign in**

[Sign in to a different account](#)

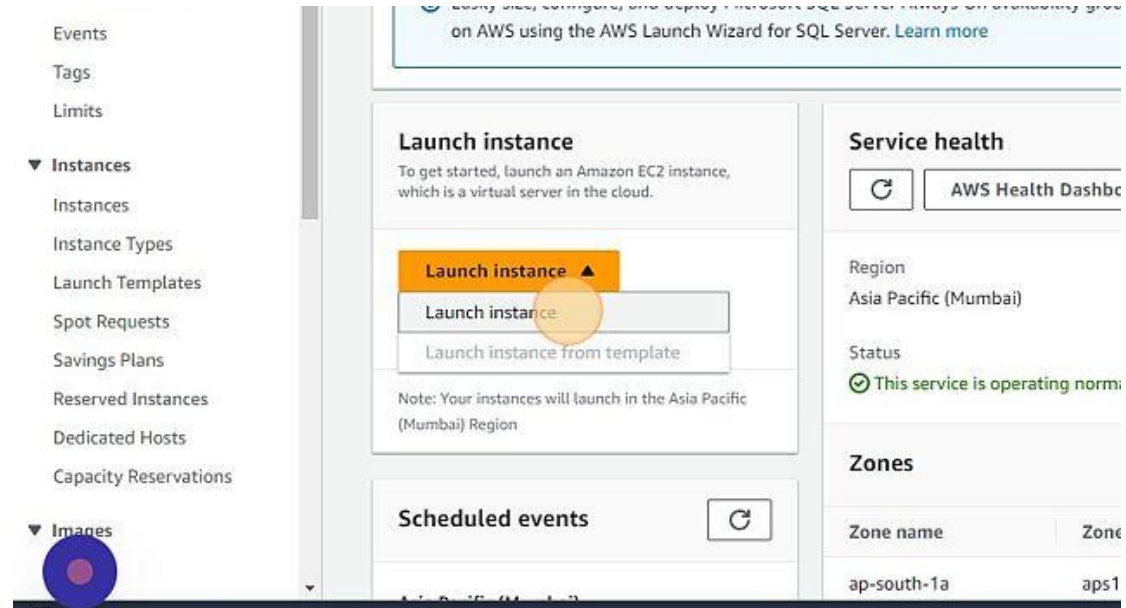
[Create a new AWS account](#)



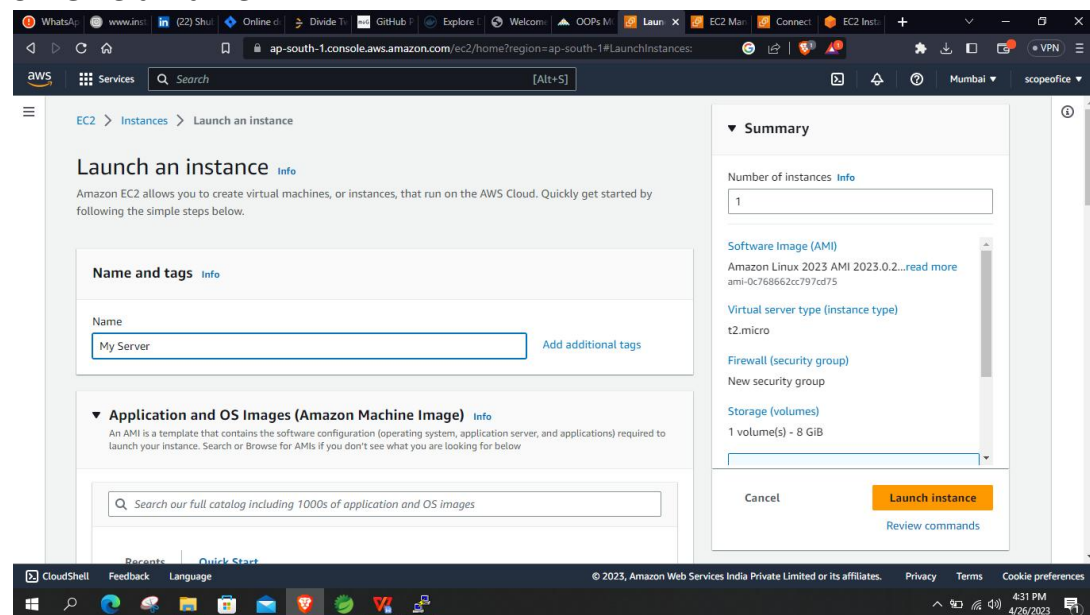
7. Click "EC2"



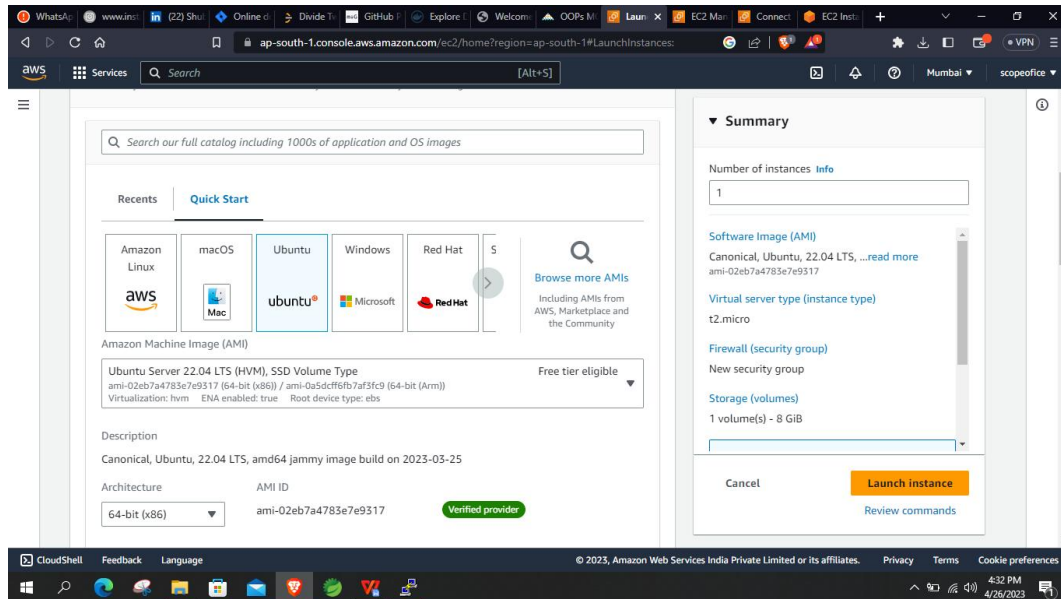
## 8. Click here



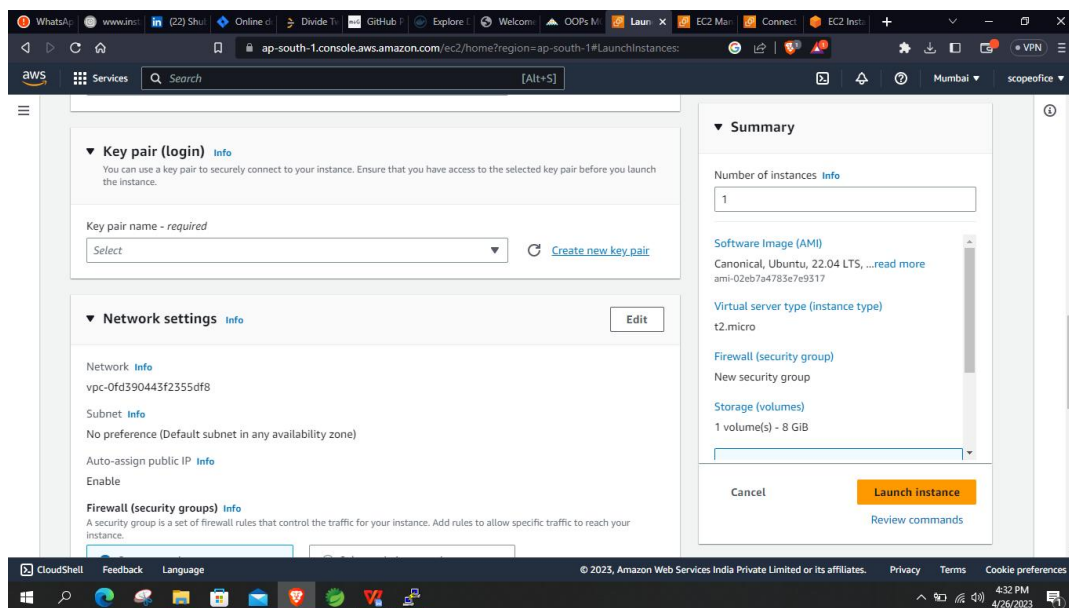
## 9. Give a Name



## 9.1 Select “Ubuntu”

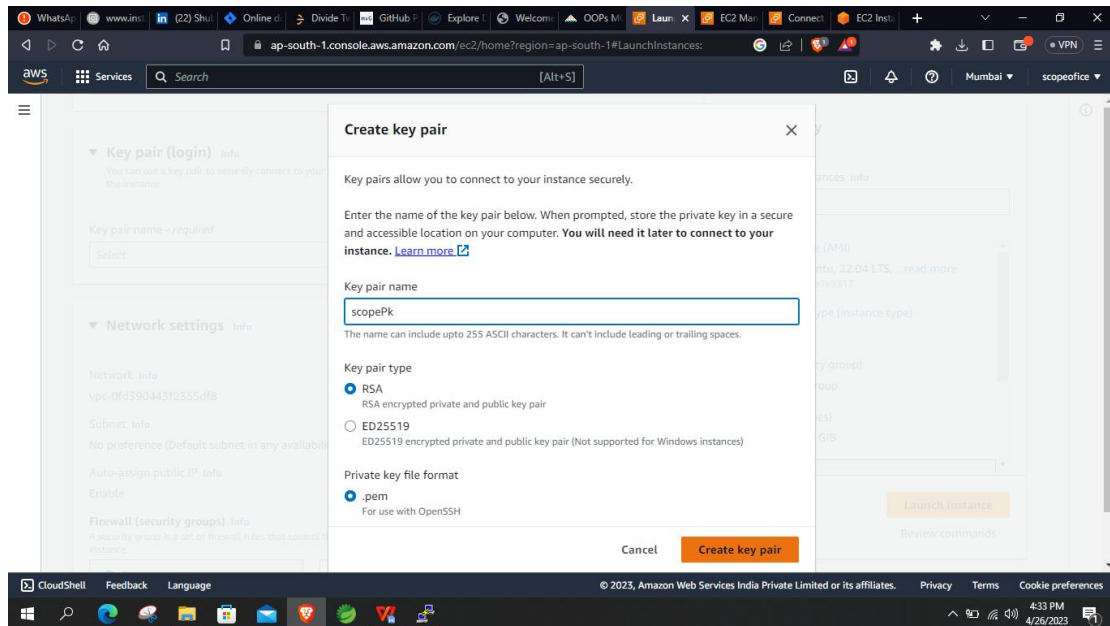


## 9.2 Select “Create new key pair”

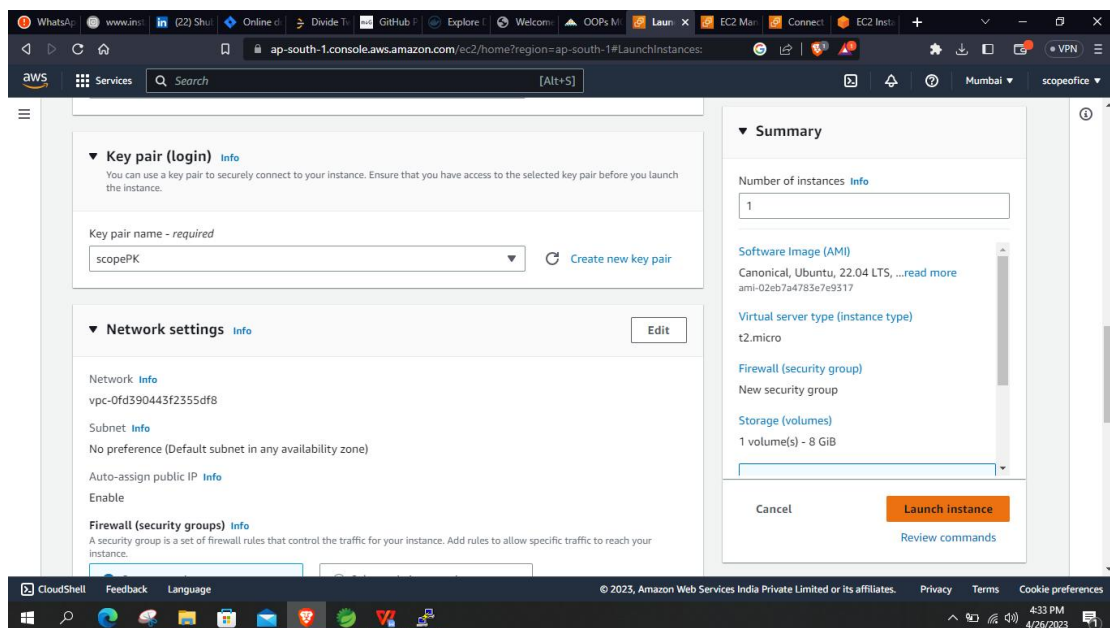




### 9.3 Give a name and Select “Create key pair”



### 9.3 Click “Launch instance”



10. Click this checkbox.

The screenshot shows the AWS Management Console interface. On the left is a navigation sidebar with options like 'EC2 Dashboard', 'EC2 Global View', 'Events', 'Tags', 'Limits', and 'Instances'. The 'Instances' section is expanded, showing sub-options like 'Instances', 'Instance Types', 'Launch Templates', 'Spot Requests', and 'Savings Plans'. The main panel displays 'Instances (1)' with a search bar and a filter for 'Instance ID = i-02501fe89d6159e7a'. Below the search bar is a table with columns: Name, Instance ID, Instance state, and Instance type. The table contains one row: 'My server', 'i-02501fe89d6159e7a', 'Pending', and 't2.micro'. A yellow circle highlights the checkbox in the first column of this row. Below the table is a 'Select an instance' section.

11. Click "Connect"

The screenshot shows the AWS Management Console interface for a specific EC2 instance. The top navigation bar includes the AWS logo, 'Services', a search bar, and a '[Alt+S]' shortcut. The main panel shows the 'Instances (1)' page with a 'Connect' button highlighted by a yellow circle. Below the 'Connect' button is a table with columns: Name, Instance ID, Instance state, Instance type, Status check, and Alarm status. The table contains one row: 'My server', 'i-02501fe89d6159e7a', 'Running', 't2.micro', '-', and 'No alarms'. Below the table is a section titled 'i-02501fe89d6159e7a (My server)' with tabs for 'Security', 'Networking', 'Storage', 'Status checks', 'Monitoring', and 'Tags'. The 'Status checks' tab is selected, showing a 'Primary' status.

12. Click here.

**Connect to instance** [Info](#)

Connect to your instance i-02501fe89d6159e7a (My server) using any of these options

**EC2 Instance Connect** | Session Manager | SSH client | EC2 serial console

Instance ID  
i-02501fe89d6159e7a (My server)

Public IP address  
3.111.187.75

User name  
Enter the user name defined in the AMI used to launch the instance. If you didn't define a custom user name, use the default user name, ubuntu.

**Note:** In most cases, the default user name, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

13. Click "Connect"

he instance. If you didn't define a custom user name, use the default user name,

ie, ubuntu, is correct. However, read your AMI usage instructions to default AMI user name.

Cancel **Connect**

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## 14. Click "Security Groups"

Find instance by attribute or tag (case-sensitive)

Instance ID = i-02501fe89d6159e7a X Clear filters

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type
<input type="checkbox"/>	My server	i-02501fe89d6159e7a	Running	t2.micro

Select an instance

## 15. Select the last launch-wizard

Tell us what you think

EC2 Dashboard  
EC2 Global View  
Events  
Tags  
Limits

▼ Instances  
Instances  
Instance Types  
Launch Templates  
Spot Requests  
Savings Plans  
Reserved Instances  
Dedicated Hosts  
Capacity Reservations

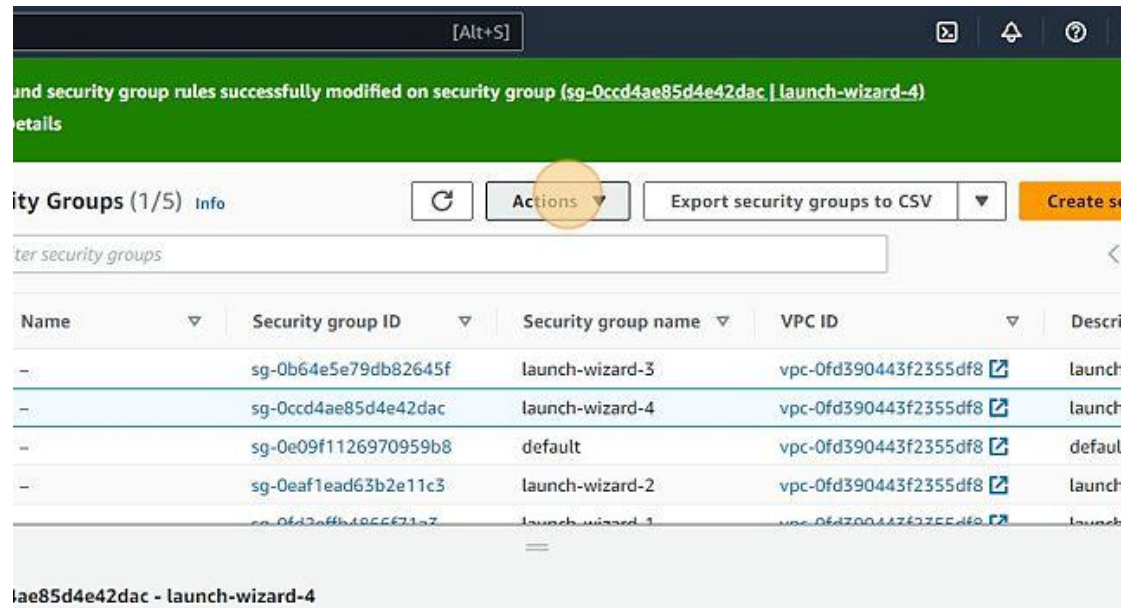
Details

Security Groups (5) Info

Filter security groups

<input type="checkbox"/>	Name	Security group ID	Security group name
<input type="checkbox"/>	-	sg-0b64e5e79db82645f	launch-wizard-3
<input type="checkbox"/>	-	sg-0ccd4ae85d4e42dac	launch-wizard-4
<input type="checkbox"/>	-	sg-0e09f1126970959b8	default
<input type="checkbox"/>	-	sg-0eaf1ead63b2e11c3	launch-wizard-2
<input checked="" type="checkbox"/>	-	sg-0fd3e6fb4866f71e7	launch-wizard-1

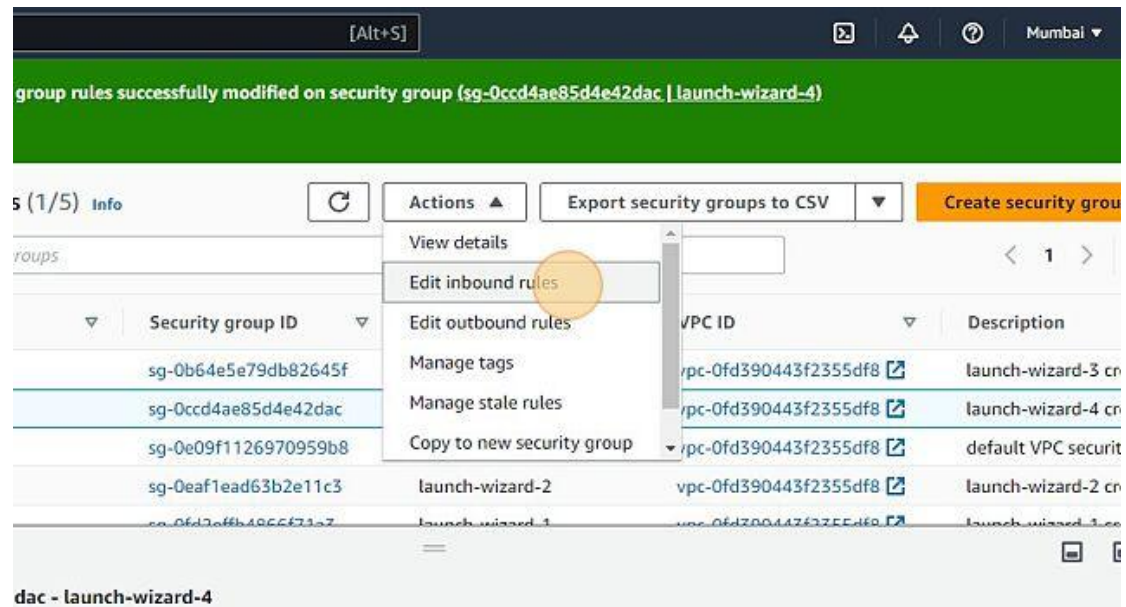
## 16. Click “Action”



The screenshot shows the AWS IAM console 'Security Groups' page. A green banner at the top indicates that security group rules were successfully modified on security group (sg-0ccd4ae85d4e42dac | launch-wizard-4). Below the banner, there's a search bar and a table of security groups. The 'Actions' button is highlighted with an orange circle.

Name	Security group ID	Security group name	VPC ID	Description
launch-wizard-3	sg-0b64e5e79db82645f	launch-wizard-3	vpc-0fd390443f2355df8	launch-wizard-3
launch-wizard-4	sg-0ccd4ae85d4e42dac	launch-wizard-4	vpc-0fd390443f2355df8	launch-wizard-4
default	sg-0e09f1126970959b8	default	vpc-0fd390443f2355df8	default VPC security group
launch-wizard-2	sg-0eaf1ead63b2e11c3	launch-wizard-2	vpc-0fd390443f2355df8	launch-wizard-2
launch-wizard-1	sg-0fd390443f2355df8	launch-wizard-1	vpc-0fd390443f2355df8	launch-wizard-1

## 17. Click “Edit inbound rules”



The screenshot shows the AWS IAM console 'Security Groups' page. A green banner at the top indicates that security group rules were successfully modified on security group (sg-0ccd4ae85d4e42dac | launch-wizard-4). Below the banner, there's a search bar and a table of security groups. The 'Actions' button is clicked, and the 'Edit inbound rules' option is highlighted with an orange circle.

Name	Security group ID	Security group name	VPC ID	Description
launch-wizard-3	sg-0b64e5e79db82645f	launch-wizard-3	vpc-0fd390443f2355df8	launch-wizard-3
launch-wizard-4	sg-0ccd4ae85d4e42dac	launch-wizard-4	vpc-0fd390443f2355df8	launch-wizard-4
default	sg-0e09f1126970959b8	default	vpc-0fd390443f2355df8	default VPC security group
launch-wizard-2	sg-0eaf1ead63b2e11c3	launch-wizard-2	vpc-0fd390443f2355df8	launch-wizard-2
launch-wizard-1	sg-0fd390443f2355df8	launch-wizard-1	vpc-0fd390443f2355df8	launch-wizard-1

## 18. Click “Add rules”

**Inbound rules** [Info](#)

Security group rule ID	Type <a href="#">Info</a>	Protocol <a href="#">Info</a>	Port range <a href="#">Info</a>	Source <a href="#">Info</a>
sgr-0efbe0e3a7dfc0ae6	SSH ▼	TCP	22	Custom ▼ <input type="text" value="0.0.0.0/0"/>

[Add rule](#)

CloudShell Feedback Language © 2023, Amazon Web S

## 19. Click “Custom TCP”

**Inbound rules** [Info](#)

Security group rule ID	Type <a href="#">Info</a>	Protocol <a href="#">Info</a>	Port range <a href="#">Info</a>	Source <a href="#">Info</a>
sgr-0efbe0e3a7dfc0ae6	SSH ▼	TCP	22	Custom ▼ <input type="text" value="0.0.0.0/0"/>
-	Custom TCP ▼	TCP	0	Custom ▼ <input type="text"/>

[Add rule](#)

CloudShell Feedback Language © 2023, Amazon Web S

20. Click “Custom”

Info

Protocol

Info

Port range

Info

Custom

Anywhere-IPv4

Anywhere-IPv6

My IP

Custom

0.0.0.0/0

X

Q

Q

Description - optional

Info

Cancel

Preview changes

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Privacy

21. Click “Anywhere IP”

85d4e42dac - launch-wizard-4

>

Edit inbound rules

that's allowed to reach the instance.

Info

Protocol

Info

Port range

Info

Custom

Anywhere-IPv4

Anywhere-IPv6

My IP

Custom

Q

0.0.0.0/0

X

Q

Description - optional

Info

22. Click “Save rule”

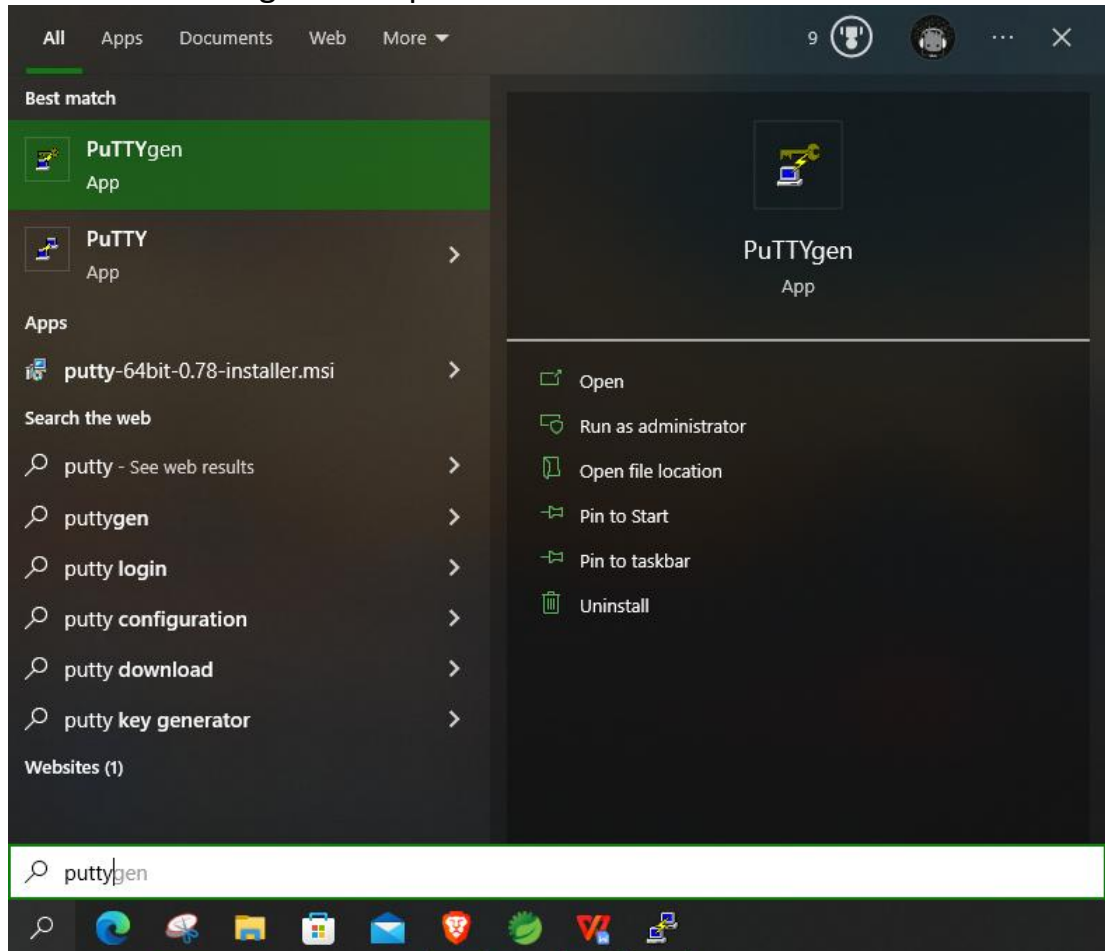
Protocol	Port range <a href="#">Info</a>	Source <a href="#">Info</a>	Description - optional <a href="#">Info</a>	
	22	Custom ▼ 0.0.0.0/0 X		Delete
	All	Anywh... ▼ 0.0.0.0/0 X		Delete

Cancel Preview changes **Save rules**

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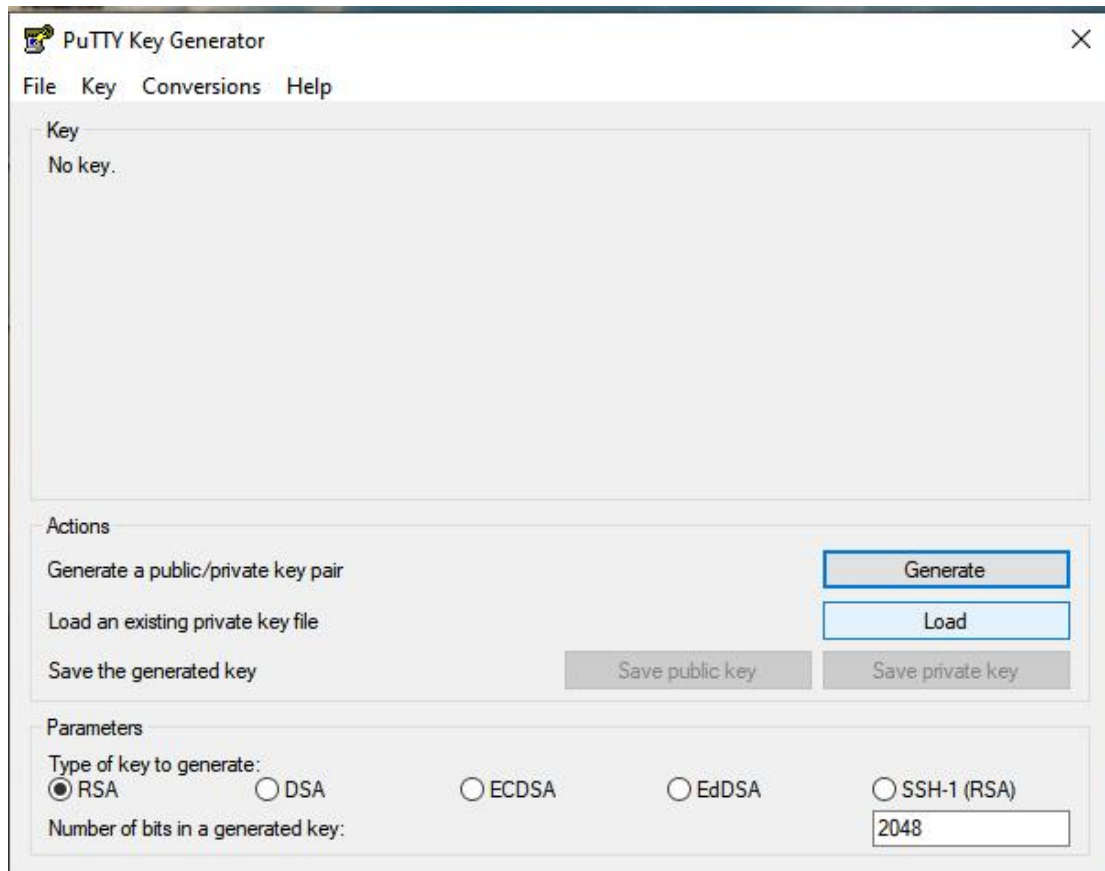
# PuTTY Commands

## 1. Search PuTTYgen and open it





## 2. Click on “Load”



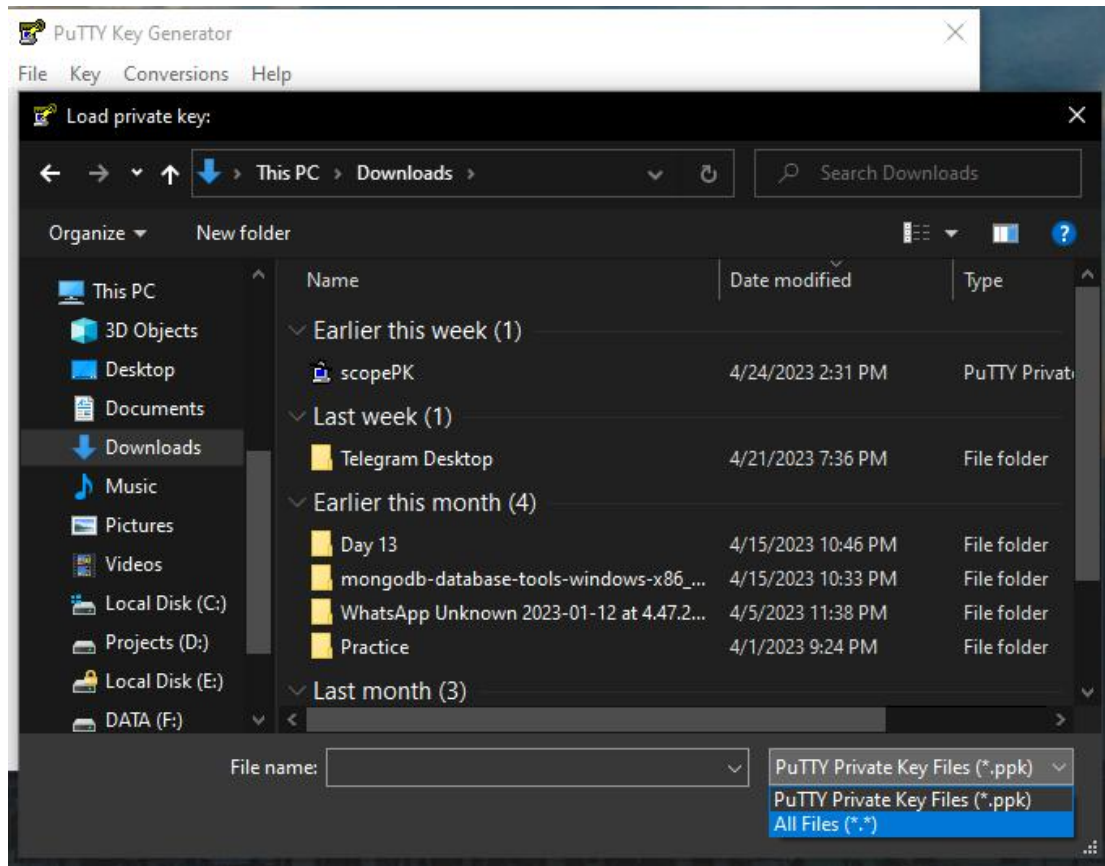
The screenshot shows the PuTTY Key Generator application window. The title bar reads "PuTTY Key Generator" with a close button (X) on the right. The menu bar includes "File", "Key", "Conversions", and "Help". The main area is divided into three sections: "Key", "Actions", and "Parameters".

**Key Section:** A large text area containing the text "No key."

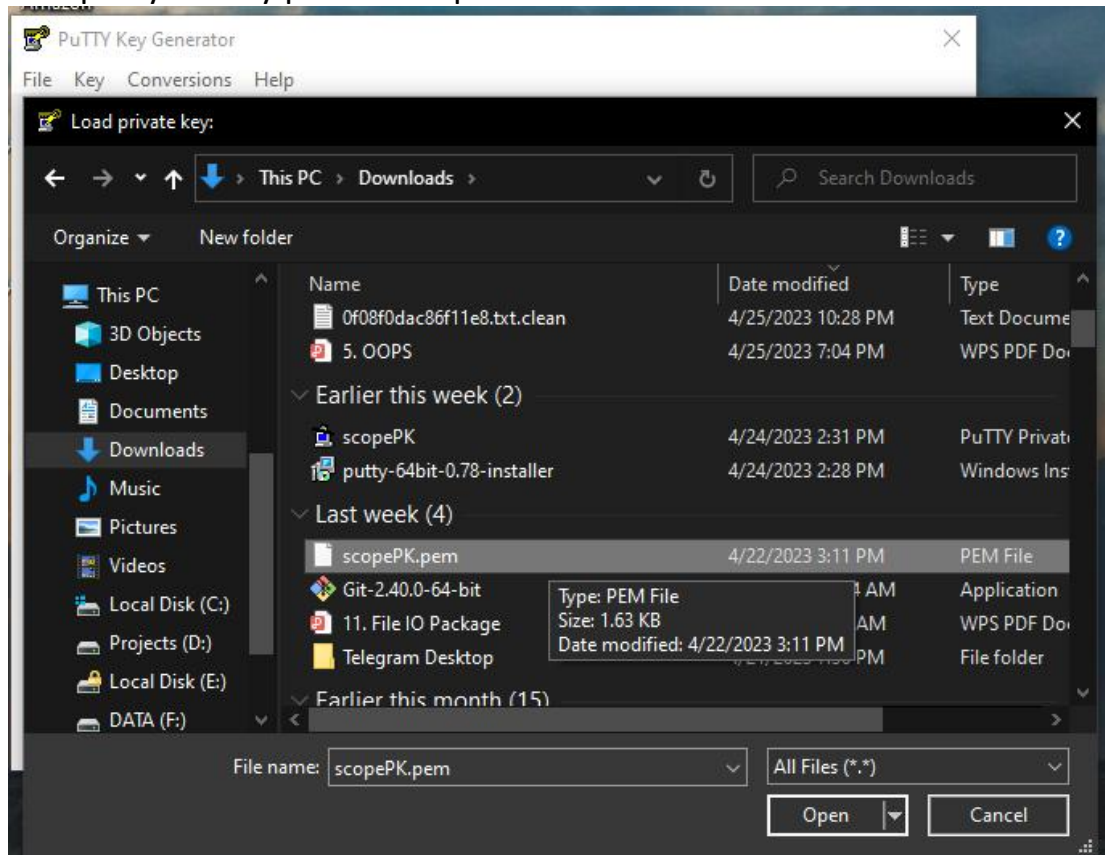
**Actions Section:** Contains three buttons: "Generate" (highlighted with a blue border), "Load" (highlighted with a blue border), and "Save the generated key" (which is disabled and greyed out). Below the "Save the generated key" button are two more disabled buttons: "Save public key" and "Save private key".

**Parameters Section:** Contains two rows of options. The first row is "Type of key to generate:" with five radio buttons: "RSA" (selected), "DSA", "ECDSA", "EdDSA", and "SSH-1 (RSA)". The second row is "Number of bits in a generated key:" with a text input field containing the value "2048".

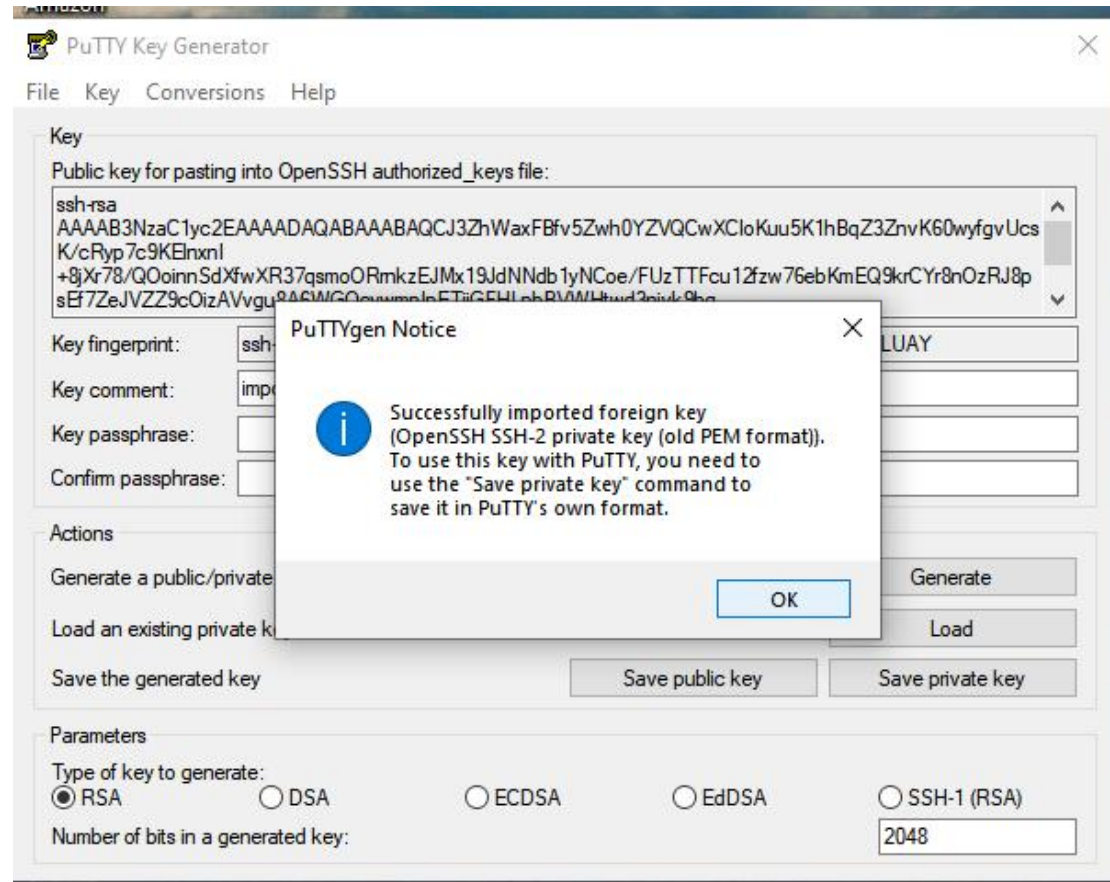
### 3. Select "All files\*"



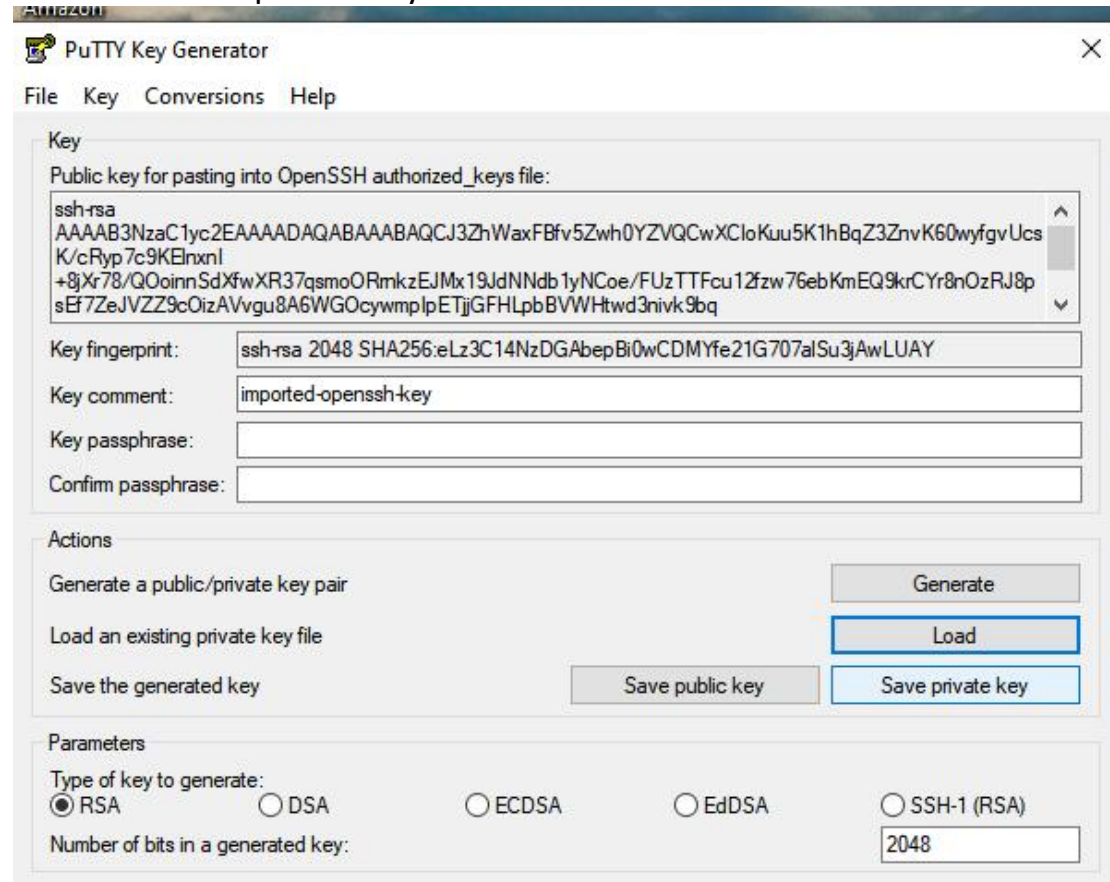
#### 4. Open your key pair with “.pem” extension



## 5. Click “ok”



## 6. Select "Save private key"



**PuTTY Key Generator**

File Key Conversions Help

**Key**

Public key for pasting into OpenSSH authorized\_keys file:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQACJ3ZhWaxFBfv5Zwh0YZVQCwXCloKuu5K1hBqZ3ZnvK60wyfgvUcs
K/cRyp7c9KElnxnl
+8jXr78/QOoinnSdXfwXR37qsmoORMkzEJMx19JdNNdb1yNCoe/FUzTTFcu12fzw76ebKmEQ9krCYr8nOzRJ8p
sEf7ZeJVZZ9cOizAVvgu8A6WGOcywmpIpETjiGFHLpbBVWHtd3nivk9bq
```

Key fingerprint: ssh-rsa 2048 SHA256:eLz3C14NzDGAbepBi0wCDMYfe21G707alSu3jAwLUAY

Key comment: imported-openssh-key

Key passphrase:

Confirm passphrase:

**Actions**

Generate a public/private key pair Generate

Load an existing private key file Load

Save the generated key Save public key Save private key

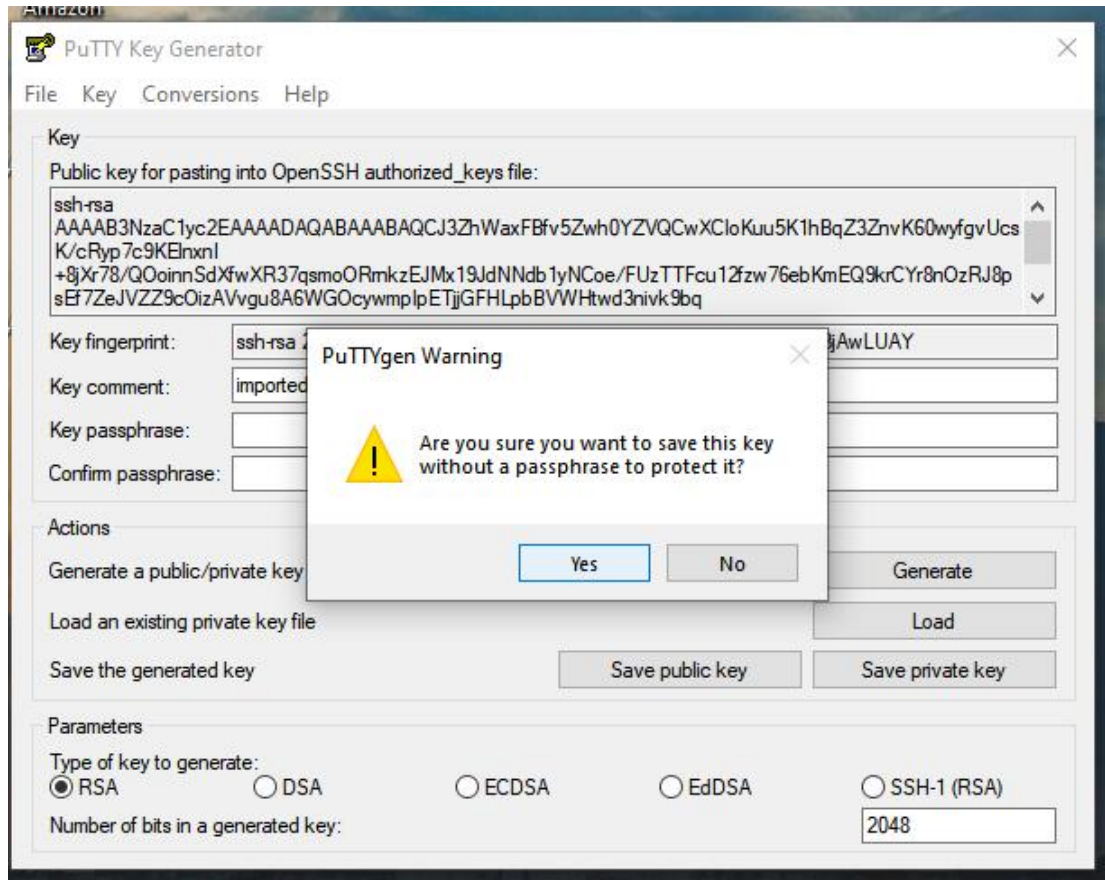
**Parameters**

Type of key to generate:

☒ RSA ☐ DSA ☐ ECDSA ☐ EdDSA ☐ SSH-1 (RSA)

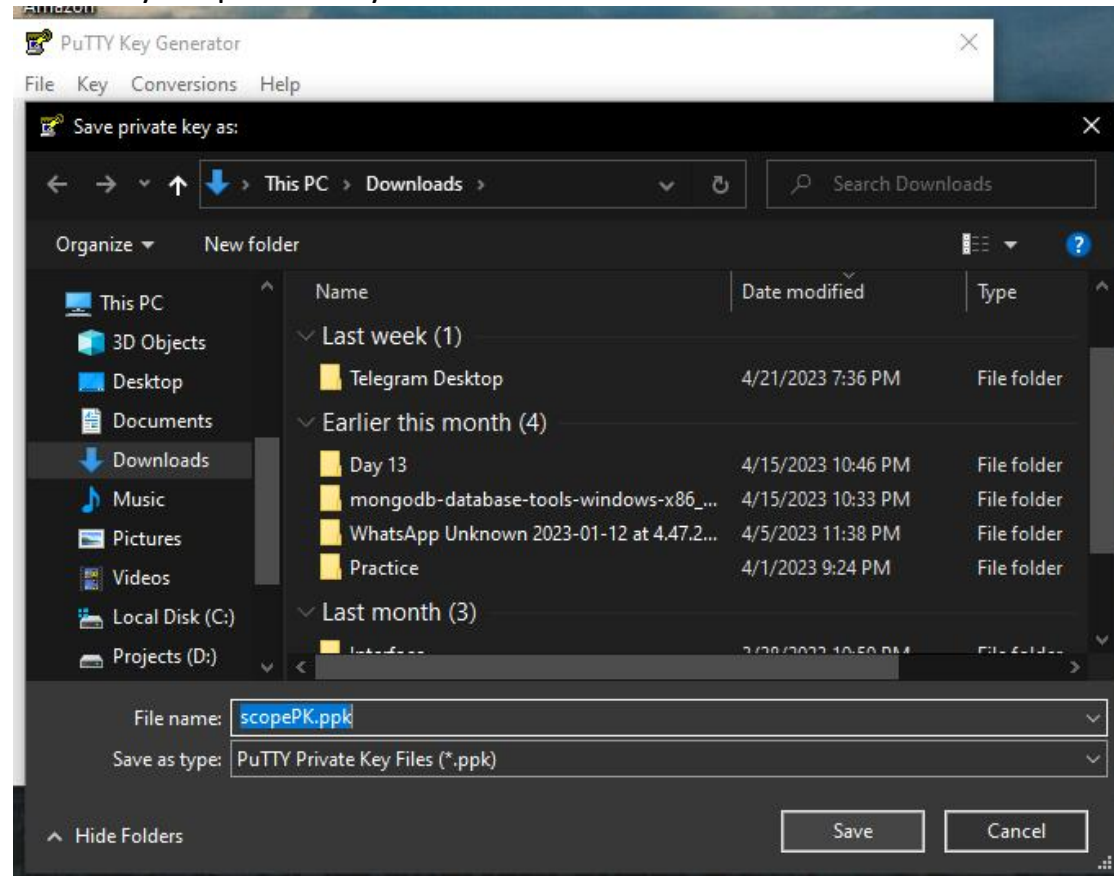
Number of bits in a generated key: 2048

## 7. Click “Yes”

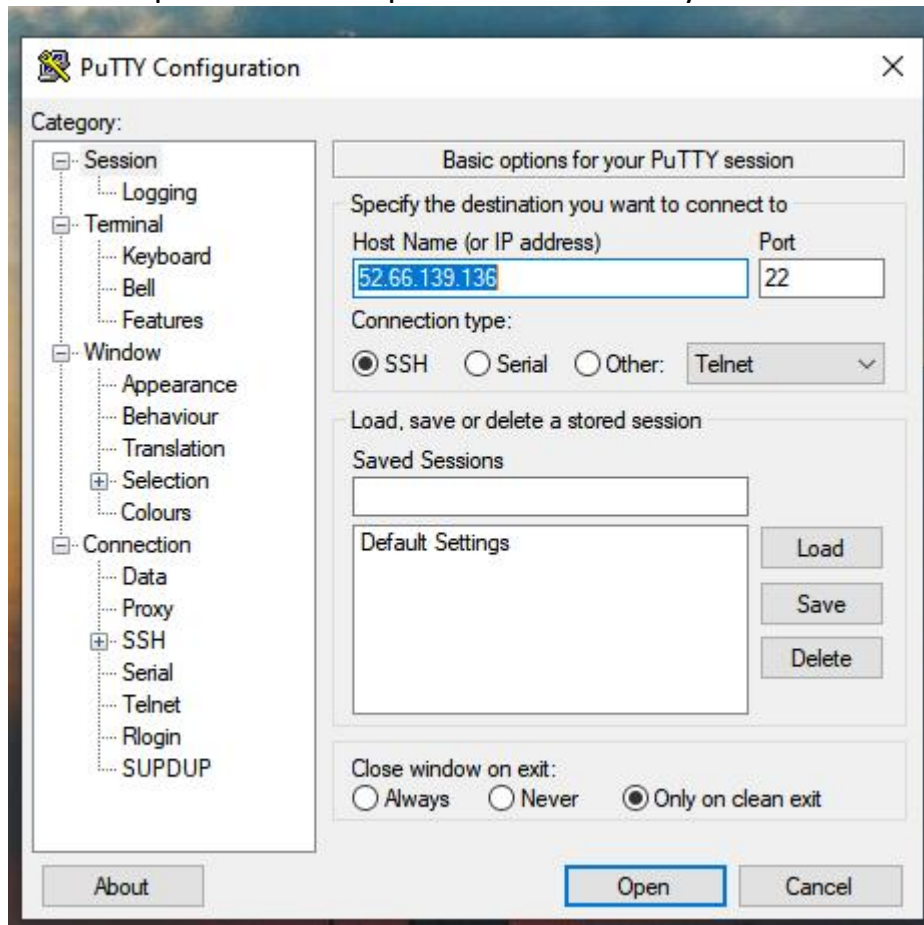




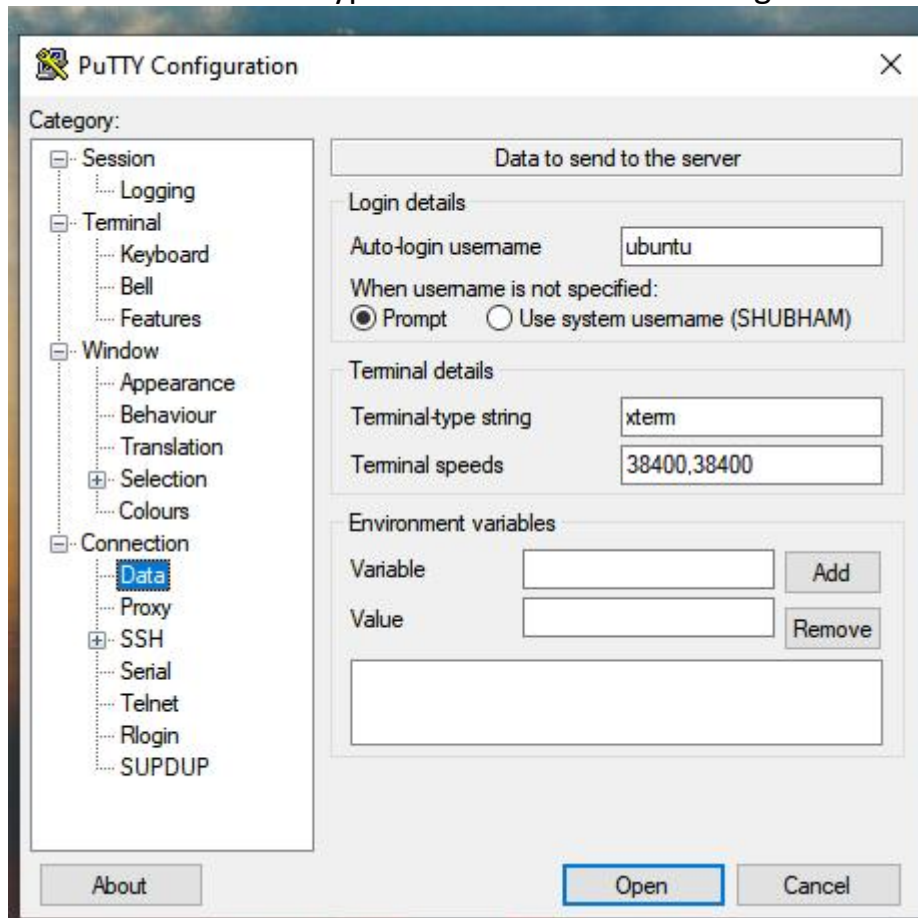
## 8. Save your private key



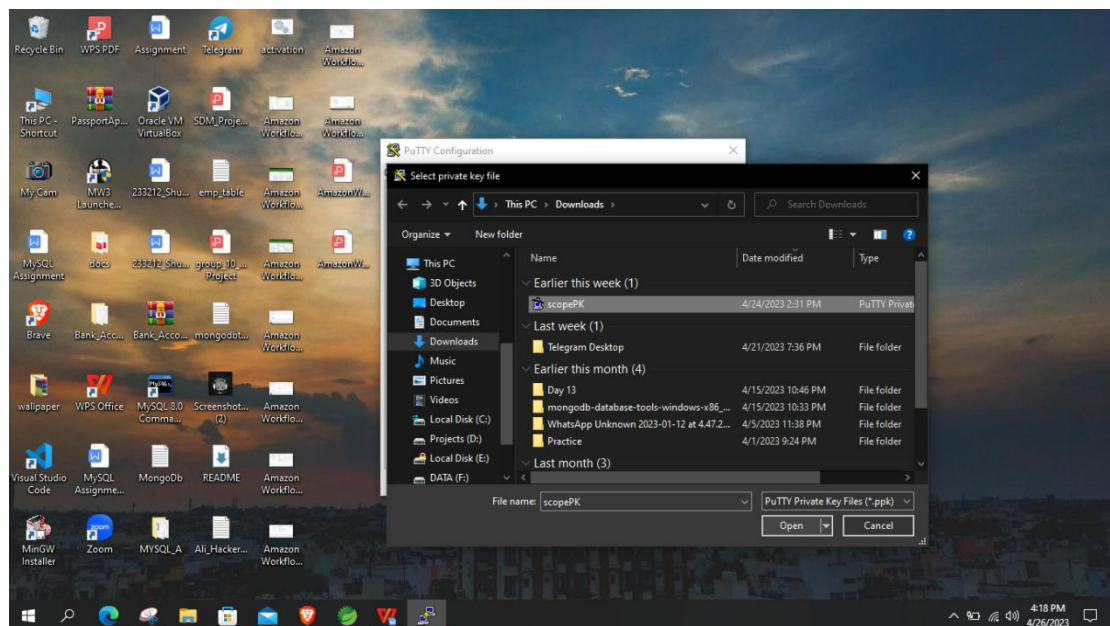
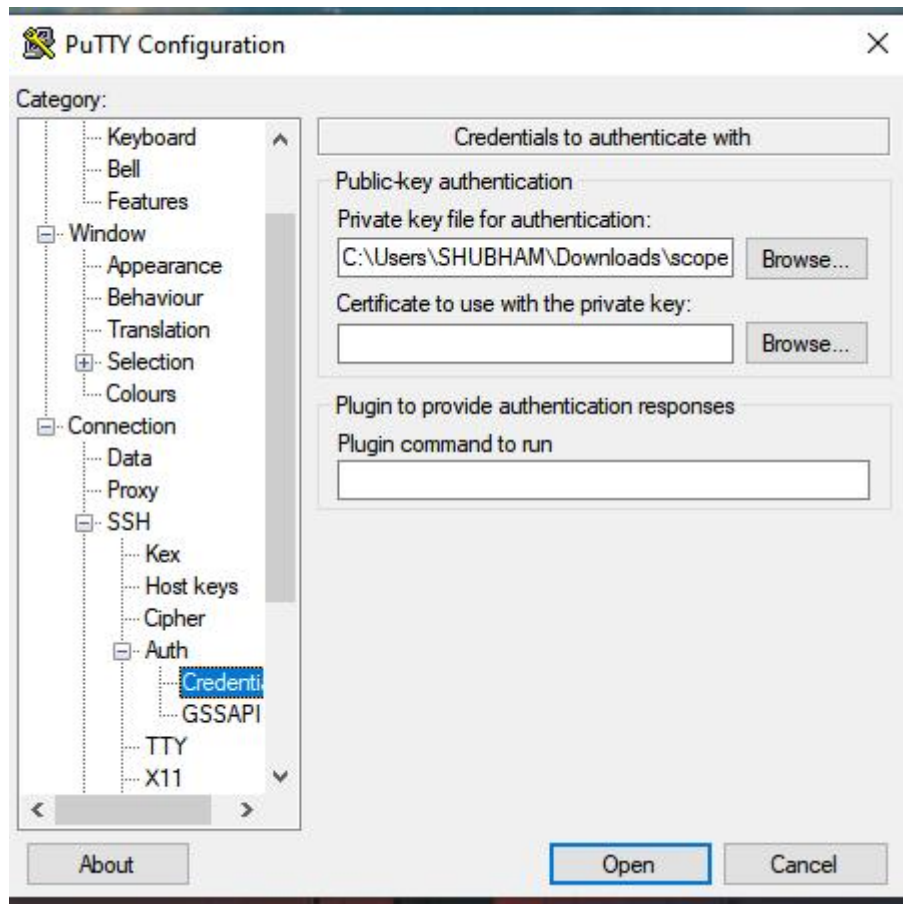
9. Now open PuTTY and paste IP address of your instance



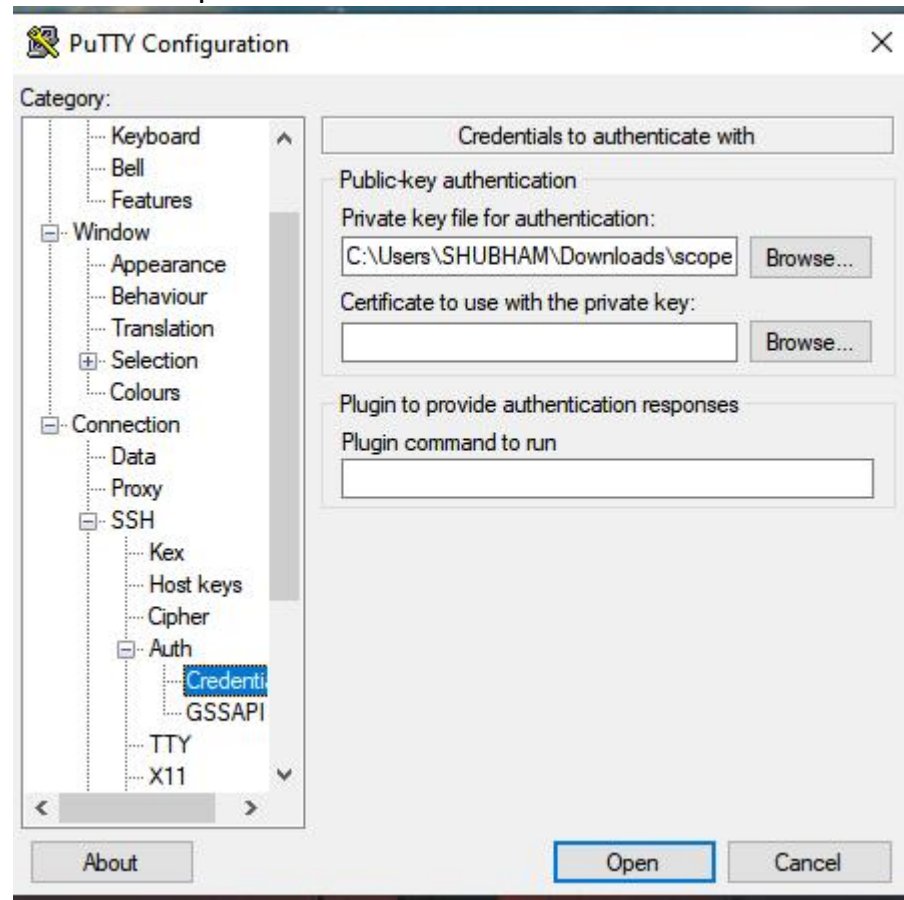
10. Select Data and type “ubuntu” in the Auto-login username



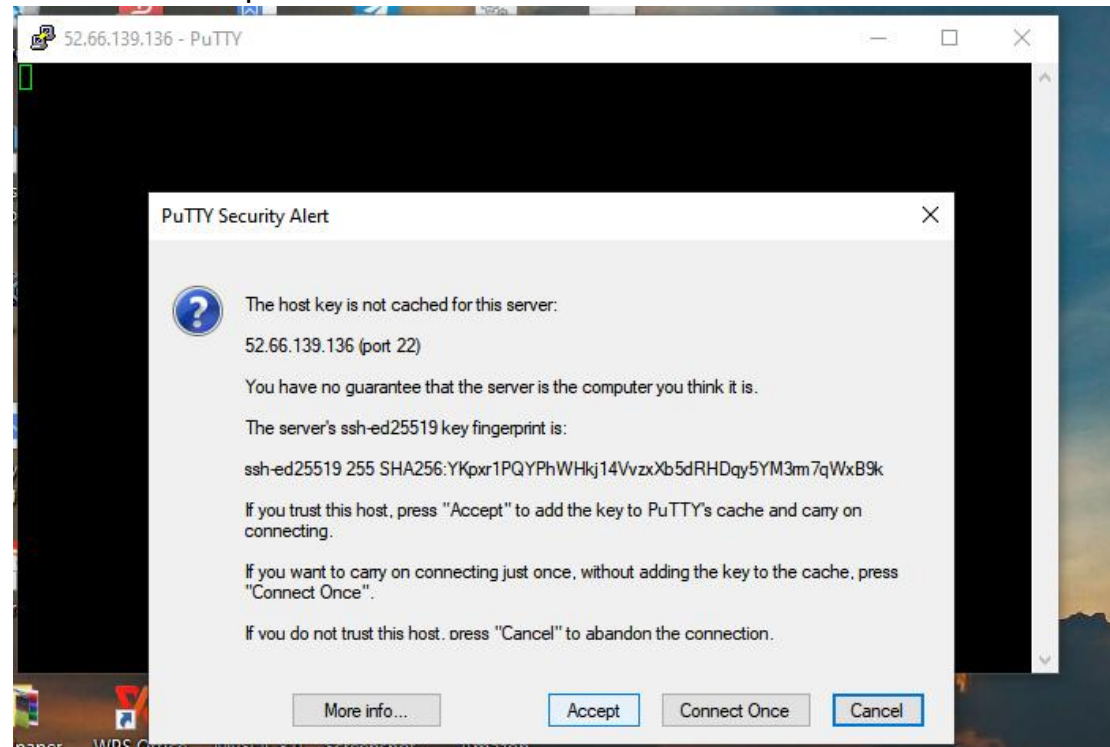
11. Go through “SSH>>Auth>>Credentials” then browse your private key.



## 12. Click “Open”



### 13. Click "Accept"



### 14. Type command- "sudo apt install"

```
ubuntu@ip-172-31-40-213:~$ sudo apt install
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-40-213:~$
```

### 15. Type command- "sudo apt-get update"

```
ubuntu@ip-172-31-43-150:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [795 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:8 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [155 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [9024 B]
```



16. If you are using an old key, Type command- “`sudo apt-get install docker.io`” then “Y” else If installing for the first time- “`sudo apt install docker.io`”.

```
ubuntu@ip-172-31-43-150:~$ sudo apt-get install docker.io
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base pigz runc ubuntu-fan
Suggested packages:
  ifupdown aufs-tools cgroupfs-mount | cgroup-lite debootstrap docker-doc rinse zfs-fuse
The following NEW packages will be installed:
  bridge-utils containerd dns-root-data dnsmasq-base docker.io pigz runc ubuntu-fan
0 upgraded, 8 newly installed, 0 to remove and 35 not upgraded.
Need to get 72.4 MB of archives.
After this operation, 287 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 pigz amd64 2.6-
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 bridge-utils amd64
```

17. Type command- `git clone` <https://github.com/RaviTambade/iascdrepomarch23.git>

```
ubuntu@ip-172-31-40-213:~$ git clone https://github.com/RaviTambade/iascdrepomarch23.git
Cloning into 'iascdrepomarch23'...
remote: Enumerating objects: 17, done.
remote: Counting objects: 100% (17/17), done.
remote: Compressing objects: 100% (16/16), done.
remote: Total 17 (delta 0), reused 14 (delta 0), pack-reused 0
Receiving objects: 100% (17/17), 76.54 KiB | 7.65 MiB/s, done.
```

18. Type command- “`Ls >> cd iascdrepomarch23 >> Ls >> sudo docker build -t iascd .`” this is to build an image of the repo. Follow the steps carefully, you can type any name instead of iascd and not there is a space and a dot after the name.

```
ubuntu@ip-172-31-43-150:~$ ls
iascdrepomarch23
ubuntu@ip-172-31-43-150:~$ cd iascdrepomarch23/
ubuntu@ip-172-31-43-150:~/iascdrepomarch23$ sudo docker build -t iascd .
Sending build context to Docker daemon 492kB
Step 1/7 : FROM node:7
7: Pulling from library/node
ad74af05f5a2: Pull complete
2b032b8bbe8b: Pull complete
a9a5b35f6ead: Pull complete
3245b5alc52c: Pull complete
afa075743392: Pull complete
9fb9f21641cd: Pull complete
3f40ad2666bc: Pull complete
49c0ed396b49: Pull complete
Digest: sha256:af5c2c6ac8bc3fa372ac031ef60c45a285eeba7bce9ee9ed66dad3a01e29ab8d
Status: Downloaded newer image for node:7
--> d9aed20b68a4
```

19. Type command- “`sudo docker images`” to check if your image is created successfully.

```
ubuntu@ip-172-31-43-150:~/iacsdrepomarch23$ sudo docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
iacsd	latest	74afff4a0ef2	4 minutes ago	668MB
node	7	d9aed20b68a4	5 years ago	660MB

20. Type command- “**sudo docker run -d -p 8081:8081 iacsd**” you can give any 4 digit port number and at the end type the image name. To check your image is running type command- “**sudo docker ps**”

```
ubuntu@ip-172-31-43-150:~/iacsdrepomarch23$ sudo docker run -d -p 8081:8081 iacsd
861bfbde1262638536647b46c554779f9615e4482099e236a034ab45616e04e
ubuntu@ip-172-31-43-150:~/iacsdrepomarch23$ sudo docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
861bfbde126	iacsd	"/bin/sh -c 'node se..."	7 seconds ago	Up 6 seconds	0.0.0.0:8081-

21. Copy your IP address and “:8081” type the image port no. Press enter.

